

Title (en)
Apparatus for parallel decoding of variable length encoded image signals.

Title (de)
Einrichtung zur parallelen Dekodierung von mit variabler Länge kodierten Bildsignalen.

Title (fr)
Appareil pour le décodage en parallèle de signaux d'image codés à longueur variable.

Publication
EP 0631440 A3 19950222 (EN)

Application
EP 94109487 A 19940620

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KR 930011547 A 19930623

Abstract (en)
[origin: EP0631440A2] An apparatus for parallel decoding of encoded image signals supplied in the form of an encoded bit stream, each of the image frames being decomposed into a predetermined number of variable length encoded blocks in the encoded bit stream, comprises: a circuit (10) having a single input terminal and N output terminals for receiving the encoded bit stream through the single input terminal, and demultiplexing the blocks in the encoded bit stream over the N output terminals; N parallel processing paths, each including a buffer memory (31A,31B,...,31N) respectively for performing the decoding operation including the variable length decoding on the blocks provided in its buffer memory; a provisional buffer memory circuit (20), disposed between the N output terminals and the N parallel processing paths, for temporarily storing the blocks to be applied to the respective buffer memory when the respective buffer memory is in a buffer full state, and providing the blocks to the respective buffer memory as the respective buffer memory has been released from the buffer full state; and a circuit (40) for multiplexing the output signals from the N parallel processing paths into a single data stream. The parallel decoding apparatus of the present invention can perform the decoding operation optimally with N buffer memories having an overall storage capacity far less than the prior art parallel decoding apparatus. <IMAGE>

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H04N 7/13; H03M 7/30

IPC 8 full level
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Citation (search report)
• [AD] US 5138315 A 19920811 - LE QUEAU MARCEL [FR], et al
• [A] US 5216503 A 19930601 - PAIK WOO H [US], et al
• [A] ICC.91, INTERNATIONAL CONFERENCE ON COMMUNICATIONS, 23-26 JUNE 1991, DENVER(US): "OKUDA:"a concurrent decoding scheme for multiple motion videos", conference record, volume 1, p.501-505"

Cited by
US5650905A; US5798717A; US5657016A; US5668548A; US5757295A; US5686916A; WO2019227323A1; WO9911071A1

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